

### ABSTRACT OF THE DISCLOSURE

The present invention involves a system for measuring biospeckle of a specimen. The system includes a source of coherent light, such as a laser, capable of being aimed at a specimen; a camera capable of obtaining images of the specimen; and a processor coupled to the camera. The processor has software capable of performing bio-activity calculations on the plurality of images. The bio-activity calculations may include a Fourier Transform Analysis, Power Spectral Density, Fractal Dimensional Calculation, and/or Wavelet Transform Analysis. The camera is capable of obtaining at least one hundred images per second. The software is capable of conversion of 8-bit bmp images to intensity values, calculating a PSD on said plurality of images.